

**ENERGY**  
**2000**

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# ENERGY POLICY PAPER

# AN ENERGY EFFICIENT ONTARIO

## TOWARD THE YEAR 2000

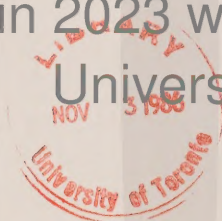


Ministry  
of  
Energy

Honourable  
Vincent G. Kerrio  
Minister

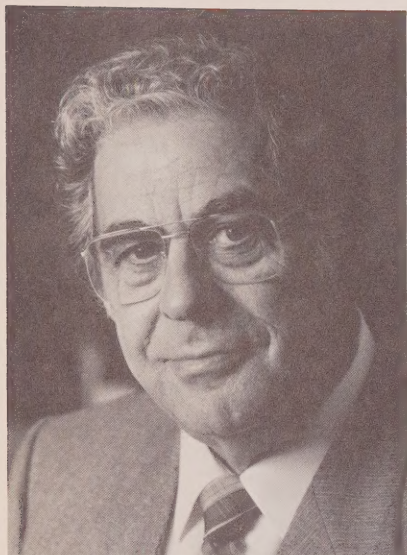


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# ENERGY 2000



## Minister's Foreword

The potential of energy efficiency and conservation in Ontario is enormous, both in terms of savings for energy users and of strengthening the provincial economy as a whole.

The Government of Ontario is committed to making the province more energy-efficient. To achieve this goal, we need the co-operation and active participation of all users and suppliers of energy in our province.

The provincial government will provide advice, information, training, selected financial assistance, and other initiatives, such as updating codes and standards that affect energy use.

The government will also provide leadership in its own operations, and has set the following energy conservation targets:

- to achieve a further 10 per cent improvement in the energy efficiency of government buildings by 1992;
- to meet an average fuel economy level of ten litres per hundred kilometres for the government vehicle fleet by 1992.

Working together, I am confident that we can achieve a more energy-efficient Ontario — a province that is better positioned to meet the challenges of the next century.

A handwritten signature in cursive script that reads "Vincent G. Kerrio".

Honourable Vincent G. Kerrio.  
Minister of Energy





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# Energy Conservation and Efficiency

## The Importance

The energy scene in Ontario has changed significantly over the past decade and a half. Today's new energy issues require new policies and priorities, a fresh approach to planning for the province's future energy needs.

Energy conservation and improved efficiency offer an excellent opportunity for strengthening Ontario's energy future. Conservation involves reducing wasteful or unnecessary energy use. Improving energy efficiency implies increasing Ontario's output of goods and services without a proportional increase in the energy used to produce them.

Energy conservation and efficiency in our province have improved over the past 15 years—but Ontario still consumes a great deal of energy. The wholesale cost of all the oil, coal, natural gas and electricity used in the province in 1985 was more than \$14-billion—or almost one-tenth of the value of all the goods and services consumed. Ontario and Canada still lag behind many of their industrial competitors in energy efficiency, and achieving a healthy energy future for Ontario will require the co-operation of all elements of our society.

To enhance Ontario's ability to meet future energy needs, one of the government's major priorities is strengthening its commitment to energy efficiency and conservation in Ontario.

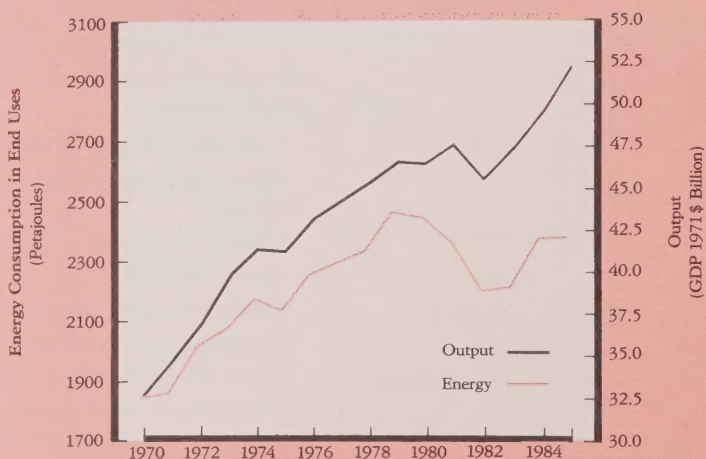
## Ontario's Energy Use and Economic Output 1970-1985

### Ontario's Energy Bill, 1985

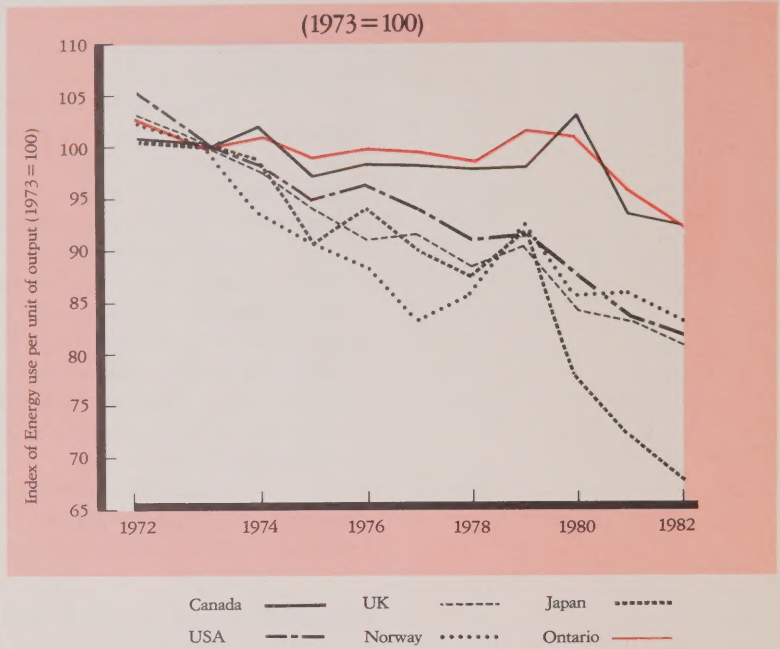
Fuel	Wholesale Cost <sup>1</sup> (\$ billion)
Crude Oil	6.4
Electricity	4.5
Natural Gas & Gas Liquids	3.1
Coal <sup>2</sup>	0.6
	14.6

<sup>1</sup>Wholesale costs prior to refining and distribution.

<sup>2</sup>Excluding coal used in electricity generation.



## International Comparison of Energy Use (1972-82)



## The Benefits

Cost-effective energy conservation measures and improved energy efficiency offer several major benefits to the Ontario economy. These benefits include:

- Increasing Ontario's industrial competitiveness;
- Reducing Ontario's energy bill, and thus increasing consumer spending power;
- Raising investment in energy conservation and efficiency, which will create more jobs;
- Reducing energy costs for government operations and public institutions;
- Reducing the amount of money Ontario spends to bring in energy, to make the province less vulnerable to shifting international oil prices;
- Reducing the need for expensive new energy supply facilities, such as pipelines and electricity generating plants;
- Reducing the environmental impacts associated with energy production and consumption.



## Residential Potential

### Achievement to date

- average home: 23% savings since 1970

### Potential

- R-2000 houses: 70% cut in heating costs
- high-efficiency furnaces: one-third off fuel bills
- efficient appliances: 15-60% savings
- existing homes: large savings through draft-proofing and insulation

## Commercial Buildings Potential

### Achievement to date

- downtown office buildings: 31% savings since 1976
- average commercial buildings: 24% savings since 1970

### Potential

- new large buildings: 55-70% savings
- existing buildings: 10% plus from low-cost measures alone

## The Potential

Energy efficiency and energy conservation improvements made in Ontario over the past decade are making a significant contribution to the province's long-term economic strength.

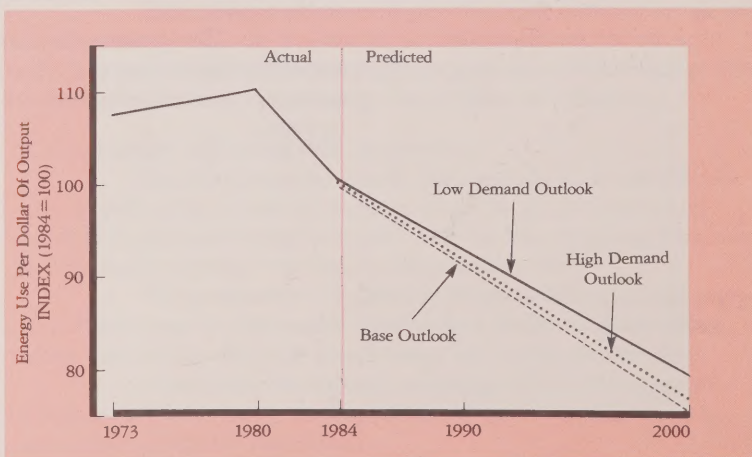
But there are several key areas where there is considerable scope for greater improvement. A great many old buildings, much equipment and many processes have not yet been upgraded to improve their energy efficiency. Many new technologies that show major energy savings have been developed and brought to market, but have not yet been widely adopted.

Today, many energy conservation and efficiency investments are cost-effective, and have been proven to save money, increase comfort and raise productivity. Energy consumers — whether they are residential consumers, vehicle owners and operators, businesses or industries — can now choose from a wide variety of energy-saving techniques.

If the current trends toward energy conservation and improved efficiency can be sustained or stepped up, Ontario will be in a much better economic position by the turn of the century.

The Ministry of Energy forecasts that the total demand for end-use energy will rise over the next decade and a half, but that the province's output of goods and services will go up even more quickly. The result is that the province's energy use per dollar of output could be reduced by 20 per cent or more by the year 2000. Ontario has an excellent opportunity for making better uses of energy — but there are several challenges that must be met to make the most of that opportunity.

## Energy Intensity in Ontario



## Industrial Potential

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### Achievement to date

- industry sector task forces: 23% savings up to 1984

### Widespread potential for

- reducing heat loss
- reducing unnecessary energy use
- maximizing combustion efficiency
- replacing inefficient equipment
- better matching of equipment to load
- improving energy delivery systems

## Transportation Potential

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### Achievement to date

- new cars: 26% more fuel efficient since 1978
- total transportation energy: down 8% since 1979

### Potential

- new cars: 17% further savings expected by 2000

## The Challenges

Energy technologies have improved dramatically in recent years, and have been tested and proven in many applications. There is great potential for much wider adoption of these new technologies. Because new investment and re-investment are extremely important for Ontario's future economic growth, a major challenge is to encourage greater investment in energy-efficient buildings, vehicles, equipment and industrial processes.

The government is committed to making energy efficiency a key consideration when new investments are being made in Ontario. If energy efficiency is built in to our buildings and equipment from the start, permanent improvements will be built in to the province's economy.

Another major challenge is resisting complacency when energy prices are falling. Even when energy prices go down, many energy conservation measures and efficiency improvements remain economical. Declining oil and natural gas prices should not discourage investors from examining the many energy conservation and efficiency options available to them.

Economically viable energy investments made today will strengthen the future position of the individuals and businesses that make them.

The government is committed to promoting energy conservation and efficiency improvements, and to working against complacency on these issues.

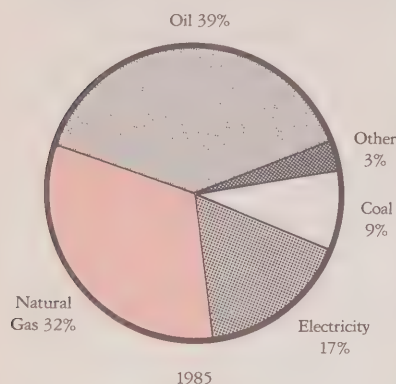
A related challenge involves choices between different fuels. Today, many energy consumers can choose from a variety of heating systems, power sources or industrial processes, and thus have a choice to make from among different fuels. Oil prices are falling today, and petroleum products are therefore becoming more competitive. But these prices could well rise again in the future.

The government is committed to making energy consumers aware that fuel choices in the marketplace must be made wisely — so that the provincial economy is less vulnerable to energy price increases in the years to come.



# Toward Efficiency

Energy Use by Fuel



Energy Price Changes 1970-86\*

Crude Oil	+ 102%
Natural Gas	+ 195%
Coal	+ 159%
Electricity	+ 47%

(\*real price changes up to June 1986)

## Toward an Energy-Efficient Ontario

The Government of Ontario will work toward the objective of achieving the most cost-effective and efficient use of energy resources to meet the needs for services which energy can provide—and thus contribute to balanced and sustained economic growth.

Government cannot—and should not—try to meet these objectives alone. Meeting the economic and social objective of better energy use requires changes in all sectors of energy use, major investments throughout the economy, and an active campaign to promote energy conservation and efficiency improvements in our society.

To provide the leadership needed to make this campaign successful, the government will apply the following principles.

### 1. The government will act as a facilitator.

Many people in Ontario are seeking to improve the ways they use energy, and the government is only one player among many in this respect. The province's role will be to facilitate these changes through promotion and by providing advice, information, selected financial assistance and other measures.

In particular, the government will concentrate on removing the barriers that could prevent conservation and energy-efficiency opportunities being widely adopted. Such barriers include lack of information, lack of technical expertise, market-entry difficulties for new technologies, regulatory obstacles, and lack of access to capital.

### 2. Energy prices generally determine the pace of energy conservation and efficiency improvements.

Today's energy prices are higher than their historical levels, and these market prices dictate the amount and rate of paybacks on energy efficiency improvements. These paybacks are generally sufficient in themselves to justify many investments in energy conservation and efficiency.

### 3. Government assistance will be selective.

Ontario has learned a great deal about the most cost-effective ways to save energy, and about the areas where the greatest savings are possible. Today, many energy users have both the knowledge and resources to make energy-saving investment decisions on their own.

The government will direct its efforts to the sectors and energy uses where it appears that market forces cannot do the job alone—areas where government efforts are most needed, and can be most effective.

In particular, the Ministry of Energy will direct its program efforts toward those energy users who lack energy information, skills or resources to do the job themselves.



### Canada's Oil Imports

(million barrels a year)

	1980	1985
Total imports of crude and products	202	103
Net imports (imports less exports)	127	-68*

\*Exports have exceeded imports since 1983.

#### 4. Ontario should reduce its dependence on oil.

Over the long term, Canada could grow even more dependent on imported oil, unless there is a concerted effort to conserve all forms of energy, substitute more plentiful fuels for oil, and find more domestic oil. That means the Ontario economy could become even more vulnerable to shifting international oil prices.

In the short term, relative energy prices could make using oil more attractive than in recent years. But consumers should be aware that future oil price rises are quite likely. Structural changes that result in increased oil dependence may not be in consumers' long-term interests.

The Government of Ontario's energy policies and programs will be directed at reducing our long-term oil dependence, thereby enhancing the province's energy security.

#### 5. The government will promote energy efficiency by providing information to specific energy users.

Directing reliable energy information to the people who need it is an important aspect of maintaining and increasing awareness of the potential for energy efficiency.

Accordingly, the government's energy information efforts will focus on promoting greater energy conservation and efficiency by providing specific information to targeted groups of energy users throughout the province.

#### 6. The government will emphasize long-lasting improvements in the structure of Ontario's energy use.

Many of the things that use energy — such as industrial equipment and processes, vehicles, appliances, homes and commercial buildings — last for a long time. When they wear out and must be replaced, or when new ones are being designed, they should incorporate the most cost-effective degree of energy efficiency possible. Such investments will have a long-lasting impact on the pattern of Ontario's energy use for many years.

Accordingly, energy improvements to Ontario's capital stock will be a major focus for Ontario's energy conservation and efficiency strategy.

#### 7. The government will support research and development of new energy-efficient technologies

Many of the recent innovations in energy-efficient technology have resulted from research and development work, much of it undertaken with government assistance.

Accordingly, the government will continue to work with energy equipment manufacturers and suppliers, researchers and energy users, to develop new technologies and innovative ways of conserving energy.

## Examples of New Energy-Saving Technologies

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### Housing:

- R-2000 house designs
- High efficiency condensing furnaces and boilers
- Air-to-air heat exchangers
- Double-glazed windows
- Improved heat pumps
- High efficiency refrigerators and freezers
- Setback thermostats

### Commercial Buildings:

- Low-energy building designs
- Heat recovery systems
- Thermal storage
- High efficiency boilers and furnaces
- Computerized energy management systems
- Efficient lighting systems
- Timer controls for lighting and equipment

### Industrial Applications:

- Improved process monitoring
- Microcomputer process controls
- Waste heat reclaim systems
- High efficiency electrical motors
- Process specific:
  - Membrane separation for food processing and waste treatment
  - Thermo-mechanical pulping
  - Improved combustion recuperative and regenerative burners

### Transportation:

- Vehicle-specific:
  - Microprocessor engine control
  - Fuel injection
  - Lightweight automobile body components
  - Fuel-efficient aircraft jet engines
- Computerized traffic control systems

Government financial assistance will be available to support the development of new energy technologies and new energy-efficient processes, from research and design stages right up to full-scale demonstration trials.

## 8. The Ministry of Energy will co-ordinate Ontario's strategy for energy efficiency.

Over the past decade-and-a-half, a key role of the Ministry of Energy has been to provide leadership and co-ordination in energy matters in Ontario.

The Ministry will continue to take the lead role in energy for Ontario. In the areas of energy conservation and efficiency, the Ministry will co-operate closely with equipment manufacturers, energy suppliers, associations of energy users and other governments, to avoid duplication of efforts and to co-ordinate the effective delivery of energy information and assistance to the people of Ontario.

# Public Utilities and Energy Suppliers

## The Role of Public Utilities and Other Energy Suppliers

Ontario's energy utilities and energy supply companies will play an increasingly important role in helping the province meet its energy efficiency objectives in the years to come.

Because the majority of Ontarians deal most frequently with their fuel suppliers and their local electric utility, the natural gas utilities, oil suppliers, municipal electric utilities and Ontario Hydro have a unique opportunity for assisting energy efficiency in Ontario. These organizations should continue to position themselves to better advise their customers on how to save energy. Fuel suppliers should provide clear and objective information to customers on conservation and efficiency options.

As well, energy suppliers' marketing efforts should be directed to areas where their products can provide significant technical, process or cost advantages over other fuels. Marketing should emphasize conservation—where it can help consumers save money.

It is in the long-term interest of energy suppliers to contribute to the development of new technology for more efficient energy use, in co-operation with manufacturers and Ontario's research community.

## Electricity Conservation

Electricity conservation and efficiency will be the major priority in planning to meet the province's future needs for electrical services. This is an important change in direction for electricity planning, which in the past has focussed on electricity supply, production and transmission. Ontario will look to conservation before large new supply options as a means of meeting the province's future needs.

Electricity conservation initiatives, such as load management and strategic conservation, have tremendous potential in Ontario and could lead to improvements in our electricity system that could significantly benefit electricity consumers. Load management essentially means reducing the demand for electricity in peak periods and increasing it in off-peak periods. This achieves better overall utilization of the electricity supply system. Strategic conservation refers to conservation that is encouraged by the utility or other agency by means of advice, assistance and financial or other incentives. This reduces the demand for electricity from customers and thus reduces the need for new supply facilities.

As the government, Ontario Hydro and the municipal utilities assess the cost-effectiveness of these initiatives and their potential impact on electricity demand, a major strategic objective will be to extend the amount of time before Ontario needs new electrical generation facilities.



## Electricity Load Management and Strategic Conservation Options

### Load Management:

- Time of use rates
- Interruptible industrial rates
- Storage water heaters
- Storage furnaces
- Direct load control

### Strategic Conservation:

- Higher efficiency home appliances
- Ground source heat pumps for space and water heating
- Energy efficient lighting in offices and commercial buildings
- Low energy construction in new electrically heated buildings
- Thermal envelope improvements in existing electrically heated buildings
- Energy efficient electric motors
- Variable-speed motors and drives

Ontario Hydro has already identified a potential for load management that could save some 1,000 megawatts of peak power and a potential for strategic conservation that could save some 1,000 to 4,000 megawatts by the year 2000. The government believes that closer study of these options will reveal substantially greater levels of conservation and efficiency gains for the electricity system.

To ensure that this potential is achieved, significant program initiatives and investments will be undertaken. These initiatives will be co-ordinated by the government and implemented by the municipal utilities, Ontario Hydro, government ministries and other agencies. In particular, the customer contacts and operational experience of the municipal utilities will be valuable assets in delivering conservation initiatives.

At present, Ontario Hydro and the government have acquired information and experience in some of these areas. However, more needs to be learned to ensure that the most effective approaches are adopted. Accordingly, a wide range of experimental programs for load management and strategic conservation will be introduced, funded largely by Ontario Hydro. Based on these further experiments and demonstrations, programs will be designed to stimulate customers to adopt measures that can provide the same services as electricity — such as heat, light and motive power — at a lower overall cost than new electricity supplies. The objective is to supply electricity services at least total cost to society.

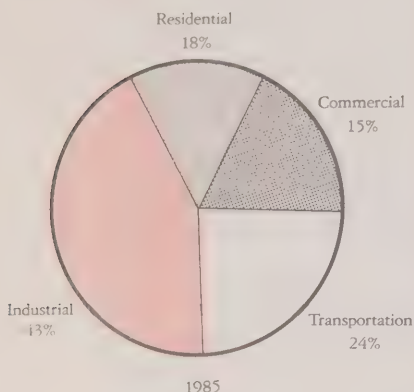
To realize several thousand megawatts of strategic conservation will likely require investment of capital approaching that required for new electricity generation.

Ontario Hydro's technical expertise can also make a major contribution to improved efficiency in electricity use. The utility should continue to allocate resources to research and development of more efficient electrical technologies, to assist customers to upgrade the efficiency of their electrical equipment, and to improve both the monitoring and metering of electrical use in Ontario.

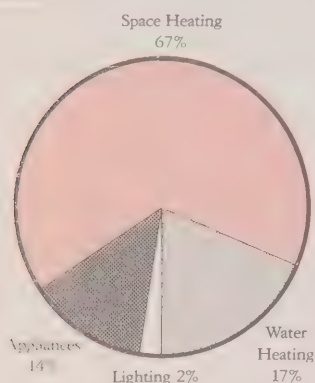
For many years, Ontario Hydro has contributed to the development of standards for appliances and other electrical equipment. The government will encourage Hydro to continue in this role, and to continue its strong support for associated labelling and public information programs.

# The Sectors

Energy Use By Sector



Residential Uses Of Energy



## Achieving the Potential — A Sector By Sector Approach

Several sectors of Ontario's economy have considerable scope for improvement in energy use.

The government has developed a sectoral approach to meeting its overall energy improvement strategy — covering the residential, commercial, industrial and transportation sectors — an approach that is outlined below.

### 1. The Residential Sector

The government will encourage the building of new housing units with higher levels of energy efficiency, in a manner consistent with anticipated future energy costs.

The building industry and homebuyers will be encouraged to accept high energy-performance standards, such as the R-2000 standard for new homes, and the use of high-efficiency heating systems. The government will examine new ways to strengthen the energy performance of buildings under the Ontario Building Code, to help achieve the objective of a more energy-efficient Ontario.

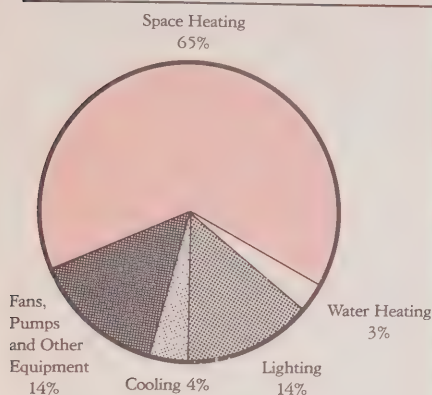
The government will encourage upgrading the energy efficiency of existing homes, and will also place special emphasis on safety, structural integrity and indoor air quality in its information, promotion and research programs.

Appliances sold in Ontario should also meet high standards of energy efficiency, and the government will support consumer information and labelling programs to ensure that this objective is met.

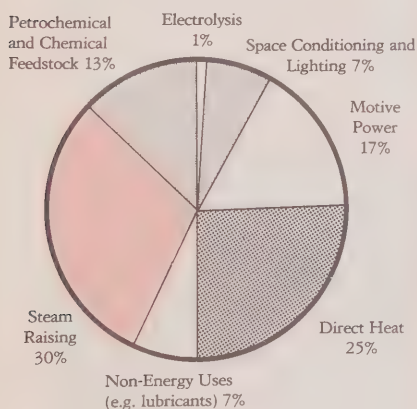


The government will promote the building of new energy-efficient housing such as the R-2000 homes, that have higher levels of insulation and more efficient heating systems than conventional houses.

## Commercial/Institutional Uses of Energy



## Industrial Uses of Energy



## Transportation Uses of Energy

<b>Passenger travel:</b>	
Automobile	51%
Airplane	7%
Bus	1%
Train, streetcar & subway	1%
Total	60%
<b>Freight transport:</b>	
Truck	31%
Marine	5%
Rail	4%
Total	40%

## 2. The Commercial Sector

The government will encourage the construction of new commercial buildings (including public and institutional buildings) to cost-effective levels of energy consumption.

As well, the government will promote the energy-performance standards now in place for its own buildings as the benchmark for the energy budgets of new commercial buildings.

The government will also encourage building owners to take advantage of the professional energy audit services now available in Ontario, and to make cost-effective improvements to their buildings' operating systems and controls. Support will be available for technical training, information exchange, demonstrations and research to achieve these objectives.

The Province of Ontario will demonstrate leadership in this area by adopting a new target of a further 10 per cent reduction in overall energy use in government-owned buildings.

## 3. The Industrial Sector

The government will encourage Ontario's industries to give higher priority to energy operating costs and efficiency when they invest in new facilities and equipment.

As well, the government will encourage and assist Ontario's existing industrial establishments to conduct energy audits, and to make cost-effective improvements to buildings, utility plants and process equipment.

The government will continue to promote information-sharing and exchange mechanisms between companies, to build on the successes achieved to date.

The government will also encourage major energy-intensive industries to maintain fuel flexibility, where this can be achieved at a reasonable cost, to protect against shifts in the price and availability of fossil fuels in an increasingly volatile energy market.

## 4. The Transportation Sector

The government recognizes that new car buyers and fleet owners can make an important contribution to saving energy in Ontario. They can accomplish this by giving high priority to fuel costs over the lifespan of vehicles, and thus ensure the long-term savings available from fuel-efficient vehicle purchases.

Drivers and fleet operators will be encouraged to improve fuel economy by adopting better driving habits and regular vehicle maintenance.

The government will also support the development and use of alternative transportation fuels — fuels that can displace gasoline or diesel.

The Province of Ontario will also encourage municipal governments to improve transportation energy efficiency, by wider use of public transit and by adopting better traffic management and urban planning.



# Strategy Implementation

## Examples of Ontario Government Initiatives

### Information

- Publications
- Manuals
- Case studies
- Videos
- Product directory
- Teaching aids
- Curriculum

### Training

- Energy advisors
- Municipal auditors
- Building operators and managers
- Builders and building trades
- Industrial energy managers
- Driver education
- Fleet management

### Outreach

- Audits
- Exhibits, displays, trade shows
- Conferences
- Seminars and forums
- Clinics
- Assistance to industry and user associations

### Commercialization demonstrations

- R-2000 homes
- Thermal storage
- Heat recovery
- Computerized energy management
- Fleet management information system
- Waste heat utilization

### Targeted financial assistance

- Draftproof
- Government buildings
- Public institutional buildings, including schools, hospitals
- Greenhouse energy efficiency
- Grain dryer retrofit

## Putting Ontario's Energy Strategy To Work

Ontario's energy efficiency strategy will include a range of programs and initiatives in each major sector of energy use. The emphasis of the strategy will be to implement cost-effective measures that can bring about improved energy use in Ontario. The kinds of programs and initiatives that will be introduced are described briefly below.

### 1. Distributing energy information

The government will produce and distribute reliable and impartial energy information, in such forms as publications, films, case studies, teaching aids, guidelines and technical manuals. This information will make consumers more aware of the opportunities for energy conservation, and will make energy users aware of the new energy equipment and techniques available.

### 2. Advice and assistance for specific groups of energy users

Detailed energy information, advice and technical assistance will also be made available to specific groups of energy users, in such forms as conferences, seminars, clinics and other communications programs.

### 3. Education

One important way to influence future energy use in Ontario is to educate our young people about the sources and uses of energy and the importance of energy conservation.



*Dudley the Dragon – a key character in the government's energy education program for young people – assists Deputy Minister of Energy, Duncan Allan, in opening a display on energy efficiency.*

## Achievements and Potential in the Public Sector

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- Ontario schools: energy use reduced by 17% since 1977.
- Community colleges: savings of 31% since 1976
- Universities: 25% energy savings since 1976; further savings of 24% identified.
- Municipalities: \$11 million savings since 1981 under Ontario government programs.
- Hospitals: potential energy savings worth \$26 million a year.

The government will introduce new education programs designed to teach wise energy use to young people, assist in the production of curriculum documents, and sponsor energy-related professional development for teachers in Ontario.

### 4. Technical transfer and training

The rapid development of new energy-efficient techniques has created an enormous need for training and education of suppliers of energy products and services. Knowledge of these new techniques must also be transferred to builders, tradesmen, architects, engineers, consultants and operating staff.

The government will therefore assist in developing appropriate training materials, and will help fund programs for this essential skills transfer and training.

### 5. Financial assistance for energy users

The government believes that market forces are the primary factor energy users consider before making investments in energy efficient technologies and energy conservation.

Selective assistance will be available, and will focus on these areas:

- demonstrations of new technology with significant energy efficiency potential;
- short-term assistance programs in areas where there are financial barriers to energy efficiency investment;
- investments aimed at energy improvements in the public sector, where selected capital grants and loans will be available to promote greater energy conservation and efficiency in government, public and institutional buildings;
- strategic conservation of electricity.

### 6. Third-party financing

In the private commercial and industrial sectors, financial considerations can often be a barrier to investment in energy efficiency projects, even though the projects can be shown to be cost-effective. As well, direct funding from the province cannot meet all the needs of municipalities, school boards, hospitals and other public institutions.

Third-party financing—an arrangement in which a third party, often an energy service company, puts up the capital, and recoups its costs plus profits from a portion of the annual energy savings realized—offers an important means of funding energy-efficiency investments.

Such arrangements have great potential, but the extent of that potential has not yet been completely proven. For this reason, the government will support demonstrations of third-party financing, to help prove and promote their effectiveness.

## 7. Research and development

The government will work with manufacturers, developers, suppliers and other energy users to find new ways of using energy more efficiently. Programs will support the development of new energy technologies and energy-efficient processes — from research and design to full-scale demonstrations.

## 8. Commercialization of energy-efficient technologies

After a new technology or practice has been developed, tested and proven to work, proponents often face a major hurdle in commercializing it.

The government will provide assistance for the commercialization of new technologies in a number of ways, including demonstrations designed to publicize and speed the commercial success of new technologies for energy conservation, and funding for Canadian energy technology suppliers, in the form of first-bid assistance or market entry assistance.

## 9. Codes and standards

The government will use regulations and performance codes to reinforce its energy conservation and efficiency efforts, and will also work to overcome regulatory barriers which could hinder the adoption of new energy technologies and practices, without compromising essential safety standards.



# Conservation in the Government

## Conservation Achievements in Ontario Government Buildings, 1975 to 1985

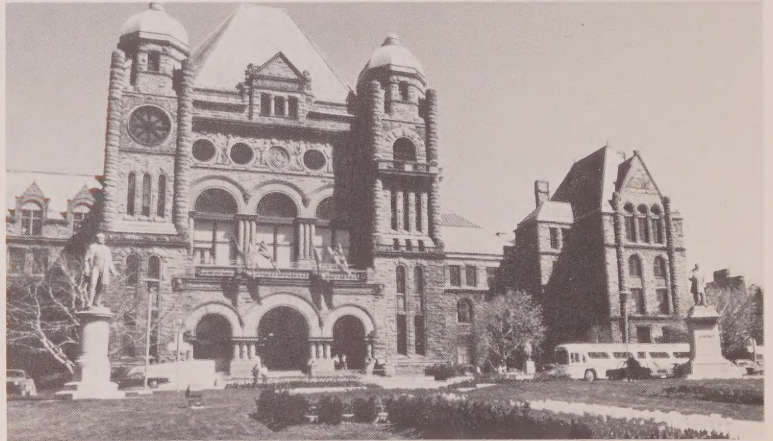
Energy Consumption Index (equivalent kilowatt-hours per square foot per year):	
1975-6	66.4
1984-5	46.9
Efficiency improvement	29%
Annual energy cost savings	\$9.5 million
Cumulative savings 1976-85	\$71 million
Investment in Energy Management Program	\$22 million

*Source: Government Buildings Energy Management Program, covering 2787 Buildings with 34.2 million sq. ft. of floor space.*

## Energy Conservation in the Ontario Government

With some 80,000 employees, 9,000 buildings, and more than 10,000 fleet vehicles, the Government of Ontario is one of the largest energy users in the province. By aggressively improving its own energy efficiency, the government will demonstrate its commitment to energy conservation and efficient operations through the many opportunities that exist for cost-effective efficiency improvements.

Targets will be set to achieve a further 10 per cent improvement in the energy efficiency of Ontario government buildings. By 1992, major government buildings will have received a comprehensive energy audit, and energy-efficiency measures having simple paybacks of less than five years will be scheduled. Major leased space, where the government is the prime tenant, will be subject to energy audits, and the lease conditions will require upgrading to government standards for leases of five or more years' duration.



*These government buildings in Toronto are part of a comprehensive government-wide program to monitor energy consumption, and improve energy performance in all government buildings.*

For new buildings and facilities constructed for ownership by the Province, the government will strengthen its energy performance standards. As well, the government-wide monitoring program on energy consumption in buildings and vehicle fleets will be maintained and improved.

The government will strengthen fuel economy standards for government fleet purchases. The Government's fleet of light duty vehicles will achieve an average fuel economy rating of ten litres per hundred kilometres by 1992. Existing vehicles will also be subject to regular tune-ups in accordance with the manufacturer's specifications.

## Living In An Energy-Efficient Ontario.

Ontario is an energy-consuming province. The province must operate in energy markets where prices and supplies are volatile, and subject to international pressures beyond Ontario's control.

But where we can have a major impact on our energy future, it is in the provincial interest to maximize the benefits that can be achieved.

If Ontario's energy strategy receives broad support from a significant portion of our society, the province's economic and social future will be more secure.

If we can increase industrial competitiveness by making our industries more energy-efficient, we will strengthen our position in international markets.

The resulting increases in sales of Ontario-produced goods and services and in consumer spending power will foster the creation of more jobs, and greater prosperity.

As well, reducing the amount of money Ontario spends on energy will make our industries less vulnerable to shifting international oil prices, keep more money in the provincial economy, and provide greater security for our society.

Reducing the need for expensive new facilities, such as pipelines and electricity generating plants will also reduce the environmental impacts associated with energy production and consumption.

At the turn of this century, Prime Minister Wilfrid Laurier predicted that the 20th century would belong to Canada. The Government of Ontario plans to lead a strong and dynamic province into the 21st century — a society that will continue to prosper and grow. A sound energy strategy will make an important contribution to that goal.

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